DOCUMENT RESUME

ED 399 704 EC 305 035

AUTHOR Lidgus, Cathy; Vassos, Sophia
TITLE Increasing Achievement of At-Risk Students through the Use of Metacognitive Strategies.
PUB DATE Apr 96
NOTE 79p.; Master's Action Research Project, St. Xavier University.
PUB TYPE Dissertations/Theses - Undetermined (040) -- Reports - Descriptive (141)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Academic Achievement; Attention Control; Behavior Patterns; Classroom Techniques; Grade 7; *High Risk Students; Intervention; Junior High Schools; *Learning Strategies; Low Achievement; *Metacognition; *Student Motivation; *Student Participation

ABSTRACT

A metacognition instructional strategy was employed to increase class participation and motivation in 21 seventh grade "at-risk" students at 2 schools in the context of the national problem of meeting the needs of "at-risk" students. A survey of the students' content area teachers and of the students themselves found evidence of the students' deficient learning strategies. Some probable causes of the students' lack of participation and motivation may have included the schools' tracking systems, departmentalization leading to curriculum being taught in isolation, teacher-directed classes, the lack of basic skills, and the lack of self-regulatory learning skills. The Strategies Intervention Model was used to address the academic, social, and motivational needs of students at risk for school failure. A major program component was the SLANT Strategy Model which helps students remember to: Sit up, Lean forward, Activate thinking, Name key information, and Track the talker. After using SLANT, teachers reported that roughly two-thirds of students exhibited the sitting up, learning forward, and tracking the talker behaviors. On "activating thinking," teachers observed that slightly more than one-third of the students asked clarifying questions. A little less than half performed the behavior of "naming key information" by answering teacher questions and sharing ideas during class discussions. (Contains 26 references.) (CR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 399 704

INCREASING ACHIEVEMENT OF AT-RISK STUDENTS THROUGH THE USE OF METACOGNITIVE STRATEGIES

by

*Cathy Lidgus & **Sophia Vassos

Submitted in partial fulfillment of the requirements for the degree of Master's of Arts in Teaching and Leadership

St. Xavier University & IRI/Skylight

Field-Based Master's Program

Action Research Project
Site: Elk Grove Village
Submitted: April 1996

*Teacher
MacArthur Middle School
Berkeley, Illinois

**Teacher
South Middle School
Arlington Heights, Illinois

EC305035

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
S. Vassos
C. Lidgus
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

BEST COPY AVAILABLE

SIGNATURE PAGE

This project was approved by

Peter Fetta MA MAT
Advisor

Mary Ellen Schuler MEd
Advisor

Terry Stirling Ph.D.
Dean, School of Education

Abstract

Cathy Lidgus and Sophia Vassos Elk Grove Village

May 1996

INCREASING ACHIEVEMENT OF AT-RISK STUDENTS THROUGH THE USE OF A METACOGNITIVE STRATEGY

This report described a program for increasing metacognitive skills in order to improve achievement in special education students. The targeted population consisted of seventh grade students in two middle schools located in suburbs of a large Midwestern city.

Analysis of probable cause data revealed that teachers reported a lack of student skills related to active class participation, motivation to perform, basic skills, and ability to acquire new information. Teachers were not familiar with instruction techniques which promote higher level thinking skills, student reflection, and high expectations for special education students.

A review of solution strategies suggested by the research literature, combined with an analysis of the problem setting, resulted in the selection and implementation of one strategy taken from the Strategies Intervention Model.

Post intervention data indicated an increase in student active participation in the classroom, a heightened awareness of teacher expectations, and a heightened awareness of themselves as learners.

TABLE OF CONTENTS

		Page
Abstract		i
Chapter		
1	Problem Statement and Context	1
	General Statement of Problem	1
	Immediate Problem Context (School A)	1
	Surrounding Community (School A)	6
	Immediate Problem Context (School B)	8
	Surrounding Community (School B)	12
	Regional and National Contexts of Problem	15
2	Problem Definition	18
	Evidence of Problem	18
	Probable Causes of Problem	24
3	The Solution Strategy	30
	Review of Literature	30
	Project Outcomes and Solution Components	35

Action Plan for the Intervention..... 36

Methods of Assessment..... 40

4 Project Results..... 42

Historical Description of Intervention..... 42

Presentation and Analysis of Results..... 45

Conclusions and Recommendations..... 52

References Cited..... 57

Appendices..... 60

Appendix A..... 60

Appendix B..... 61

Appendix C..... 63

Appendix D..... 64

Appendix E..... 65

Appendix F..... 66

Appendix G..... 67

Appendix H..... 68

Appendix I..... 69

Appendix J..... 70

Appendix K..... 71

Appendix L..... 72

Chapter 1

PROBLEM STATEMENT AND CONTEXT

General Statement of Problem

The targeted middle school students exhibit low academic achievement and along with other reasons, are at risk for school failure. Evidence for the existence of the problem includes: standardized test scores, teachers' observations, teacher and student surveys, and consultation with teachers, school counselor, social worker, psychologist, and building principal.

Immediate Problem Context

School A exists in an elementary school district comprised of two middle schools servicing sixth, seventh, and eighth grades and seven elementary schools servicing kindergarten through fifth grades. The total population of school A is 635 students. The ethnic composition of the targeted middle school is 91 percent White, 3 percent Hispanic, and 6 percent Asian/Pacific Islander. Four percent of the student population derive from low-income families. Three percent of the student population have limited English proficiency.

The attendance rate for school A is 95 percent. The student mobility rate is six percent and chronic truancy at this school is zero percent (School Report Card, 1994).

The total number of faculty members at school A is 67. This number includes the following: administrative staff (one principal and one assistant principal); special services (one psychologist, one full-time social worker, one part-time speech and language therapist, one part-time occupational therapist, and four full-time teaching assistants); support staff (one librarian and two library assistants, one gifted coordinator, one part-time English as a second language instructor, one counselor, one nurse, one full-time computer lab assistant, and one band instructor); forty seven classroom teachers. This teaching staff consists of 23 percent male teachers and 77 percent female teachers. The ethnic composition is 99 percent White and 1 percent Asian/Pacific Islander and the average teaching experience is 16 years. Forty-five percent of the teaching staff have a bachelor's degree; fifty-five percent have a master's degree or above.

The student-administrative ratio for school A is 317:1. The student-teacher ratio is 14:1. The average class size is 23 students. (School Report Card, 1994). Students in school A attend school from 8:00 A.M. until 3:00 P.M. The school day contains 10, 39 minute class periods with a 4 minute passing time between each and a 30 minute

lunch. Students' daily schedules include one period each of the following subjects: math, science, social studies, language arts, reading, physical education, creative arts, and foreign language. In the creative arts area, students have the opportunity to select any four of the six they prefer. The duration of each course is nine weeks, one quarter. Foreign language options are French, German, or Spanish. As sixth graders, the students take nine weeks of each foreign language. At the culmination of sixth grade, students who are recommended by teachers to continue with the program may select one of the foreign languages for seventh and eighth grades. Students not recommended to continue are placed in an enrichment class where study skills are taught. Advisor/advisee is conducted two days a week in the morning and multi-purpose class is conducted three days a week in the afternoon. All students view Channel One, a current events program targeted for young people, each day for 10 to 15 minutes on the television monitors installed in each classroom of the building.

School A services sixth, seventh, and eighth grade students. There are eight sections of classes at each grade level. These eight sections are further divided into two "teams" of four sections. Each team receives instruction of academic class content from the same four teachers. Students are homogeneously grouped by ability for math and science, which in turn skews the "heterogeneous" grouping

for the remaining subjects. There are three self-contained Learning Disabilities/Behavior Disorders special education classrooms, one at each grade level. Each special education teacher and class is involved in one academic class during the day in the regular education setting. All other subjects are taught within the self-contained setting. A special education resource room exists with one teacher instructing at each grade level. A program for the gifted is included for those students who have attained a certain level on a standardized test. These students receive instruction two days a week in lieu of a language arts period.

Teachers' daily schedules at school A encompass six periods of academic instruction in two subject areas at either a sixth, seventh, or eighth grade level, one period designated for instructional planning, one period of instruction of an advisor/advisee or supervision of a multi-purpose class, one period of involvement in a team meeting, and one period of lunch.

In addition to the regular school day, various extra-curricular activities are offered for students at school A. Athletic programs include girls and boys interscholastic basketball at the seventh and eighth grade levels, girls and boys track and field and cross-country at all three grade levels, co ed intramural softball, volleyball, floor hockey, and dodge ball at all three grade levels.

Other activities offered are Pom Squad and Cheerleading for seventh and eighth grade girls, Band, Chorus, Newspaper, Yearbook, Science Olympiad, Student Council, and Caring Cardinals (a group comprised of students and teacher sponsors who volunteer their time to help underprivileged persons and the elderly in the community).

School A is housed in a facility offering a variety of areas which enhance the school's environment. Creative Arts programs each have their own rooms equipped with instructional tools relevant to the program. Home economics has a separate room for sewing and cooking instruction and the industrial arts program has a drafting room and a woodworking room. The school's learning center is equipped with a CD-ROM. The computer lab has 30 Macintosh computers and is utilized for keyboarding classes, as well as by entire classes from academic areas. The science department utilizes three separate labs. A band room is used for band instruction only. There is a meeting room for teachers and two teacher's lounges. Students are offered hot lunches in the school's cafeteria. There are three gyms, one of which is furnished with a stage. Outdoor physical education takes advantage of three baseball diamonds and four tennis courts.

The Surrounding Community

School A is in a community covering 16 square miles. The total population is 75,460. Of this figure, 92 percent are White, 1 percent is Black, 4 percent are Asian/Pacific Islanders, and 3 percent are Hispanic. Females make up 52 percent of the population and males account for the other 48 percent. The population density is 4,666 people per square mile. There are 28,810 households in this community and the average household size is 3 persons. The per capita income is $23,061 and the median family income is $61,626. The median household income is $51,446 and the average household income is $59,692. The median age of the population in this community is 36 years old. Ten percent of the population do not have a high school diploma, 43 percent have a high school diploma or some college education but no college degree, 7 percent have attained an associate degree, 27 percent have a bachelor's degree, and 13 percent have a graduate or professional degree. Three percent of the community is unemployed. Eighty-three percent of those in the work force are white collar workers and 14 percent are blue collar workers. Eighty-nine percent of the family households with children come from married couple families, two percent are from male householders, and nine percent are from female householders. The average home value is $181,844.

Eighty-nine percent of the targeted school's community have less than an hour travel time to work (U.S. Census, 1990).

To better understand school A, some information about the local school district is needed. As stated earlier, it encompasses two middle schools and seven elementary schools. Overseeing district operations is a superintendent and a seven member board of education. The pupil-administrator ratio is 265:1 (School Report Card, 1994). The average administrator's salary is $77,961. The average operating expenditure per pupil is $6,653. The percentage of expenditure by fund is as follows: education, 57; operations and maintenance, 7; transportation, 4; bond and interest, 6; municipal retirement, 2; site and construction, 25. The total expenditures were $36,142,616 for the 1992-93 school year (School Report Card, 1994).

Several agencies support the district in which school A exists. There is an active PTA at each school which works to foster close relations between the home and school. The PTA is run by parent and non-parent residents who collectively contribute more than 80,000 volunteer hours each school year (Board of Education District A, 1994). Along with the active PTA, other community resources help to enhance the students' learning process. The local library, a historical society museum and the park district all network with the school to provide additional educational services. The local park

district also provides supervised before and after school care for students at the elementary school buildings for nominal fees. Finally, a local, non-profit foundation has been created to provide funds for educational enrichment for the students serviced in the district. Financed through fund raising activities, the foundation is run by parents, local business people, civic leaders, and educators.

Immediate Problem Context

School B exists in an elementary school district comprised of two middle schools and four elementary schools. The two middle schools differ in that one services fifth through eighth grades; the targeted middle school services sixth through eighth grades. Of the four elementary schools, one services kindergarten through fourth grades and three service kindergarten through fifth grades. The total population of school B is 329 students and its ethnic composition is 27 percent White, 52 percent Black, 14 percent Hispanic, 5 percent Asian/Pacific Islander, and 1 percent Native American. Thirty percent of the student population is derived from low-income families. Fifteen percent of the student population have limited English proficiency. The attendance rate for school B is 96 percent and the student mobility rate is 15 percent. Chronic truancy at school B is one percent; the equivalent of two chronic truants (School Report Card, 1994).

The total number of faculty members at school B is 42. This number includes the following: administrative staff (one principal); clerical staff (two secretaries); special services (one full-time social worker, one part-time speech and language therapist, one part-time occupational therapist, one part-time school psychologist, and four special education classroom aides); support staff (one district librarian, one full-time library aide, one full-time health aide, one band instructor, and one counselor); twenty-six classroom teachers. This teaching staff consists of 27 percent male teachers and 73 percent female teachers. The ethnic composition is 99 percent White and 1 percent Black. The average teaching experience is 12 years. Fifty-four percent have a bachelor's degree; 46 percent have a master's degree or above.

The student-administrative ratio for school B is 329:1. The student-teacher ratio is 13:1 and the average class size is 19 students (School Report Card, 1994). Students in school B attend school from 8:15 A.M. until 3:05 P.M. The school day contains 8, 41 minute class periods with a three minute passing time between each and a 30 minute lunch. Students' daily schedules include three language arts periods (one teacher for all three periods), and one period each of the following subjects: math, science, social studies, physical education, and one of four Specials. Specials include art, home management (cooking and sewing), computer, and music.

Students are scheduled to take one Special each nine week period, one per quarter.

School B services sixth, seventh, and eighth grade students. The sixth graders are heterogeneously grouped into four self-contained classrooms for academic instruction in the content areas. The seventh and eighth grades are divided into five sections each. Students are grouped as follows: three heterogeneous classes of average ability, one homogeneous class of high ability and one homogeneous class of students in the Academics Plus Program. This program is designed to meet the needs of students characterized as at-risk for school failure. These students are initially identified due to excessive academic failure. Upon failure of three of five academic subjects, the student is referred to the Child Study Team. Interventions are developed to assist teachers with these students in the classroom. Follow-up is conducted approximately three weeks later to assess the effectiveness of the interventions. At this time students may be recommended for the Academics Plus Program. Students in this program receive instruction in the content areas with one teacher. Emphasis is placed on mastering basic skills in reading, writing, and math while maintaining high expectations for student performance in working towards grade level achievement.

School B also includes four self-contained special education classrooms which are comprised of students from all three grade levels. Each classroom is instructed by one teacher and a teacher assistant. Students receive instruction in the content areas in the special education setting and are mainstreamed into the regular education setting for physical education and a Specials class. In addition, a special education resource program, instructed by two teachers, services students at all three grade levels.

Teachers' daily schedules at school B encompass six periods of academic instruction in one or two subject areas, at a seventh or eighth grade level, one period designated for instructional planning, one period designated for student supervision, and a scheduled lunch period. The supervision period is utilized on an as-needed basis for supervising students who have received an in-school suspension, coverage for absent teachers when a substitute is not available, or for teachers who are attending meetings.

In addition to the regular school day, various extracurricular activities are offered for students at all three grade levels. Athletic programs include interscholastic girls and boys basketball and co ed intramural floor hockey. Other activities offered are Cheerleading, Band, Drama Club, Spanish Club, Newspaper, Yearbook, Student Council and Ninth Hour Homework Club.

School B is housed in a facility offering a variety of areas which enhance the school's environment. Specials programs have their own rooms equipped with instructional tools relevant to the program. Home management has a separate room for cooking and sewing instruction, the music lab contains electronic keyboards. The computer lab is set up with 25 Macintosh computers for students and one for teacher instruction. Physical education takes place in a gym with a separate stage area. Students receive instrumental music instruction in the band room. Science experiments are conducted in two science laboratories. The Little Theater, furnished with a television and a VCR, can house up to 60 students. Additional televisions and VCR'S are located on the first and second floors of the building and can be moved from room to room on a cart. Students have access to a Learning Center which contains a school store. The school's cafeteria serves hot lunches daily. Available to teachers are two lounges, a workroom and a conference room for meetings.

The Surrounding Community

School B provides education to students living in three different communities. Community One has a total population of 7,672. Community Two has a total population of 5,137. The total population of Community Three is 20,241.

Since Communities One and Two are statistically similar, their data has been averaged. The racial composition is as follows: White, 84 percent; Hispanic, 6 percent; Black, 5 percent; Asian/Pacific Islander, 5 percent; and Other, 0 percent. The percentage of the population that is male is 49 percent and females account for the other 51 percent. The total number of households are 2,464 and the average number of people per household is 3. The per capita income for these communities is $16,799 and the median household income is $40,358. The percent of married-couple householders is 82, female householders is 12, and male householders is 6. The percentage of persons 25 years and over without a high school diploma is 21. In addition, 56 percent of the community earned a high school diploma and have some college education but no degree. Associates degree holders equal 9 percent; bachelor's degree holders equal 12 percent; and graduate or professional degree holders equal 2 percent. Four percent of the people from these communities are unemployed and the poverty level is three percent. The average travel time to work is 25 minutes (U.S. Census, 1990). Due to rounding and combining two communities, some of the above figures do not add up to 100 percent.

Of the 20,241 persons in Community Three, 70 percent are Black, 22 percent are White, 6 percent are Hispanic, 3 percent are Other, and 1 percent is Asian/Pacific Islander. Males make up 48 percent of the population and females account for the other 52 percent. There are 6,270 households and the average household size is 3 persons. The per capita income is $13,325 and the median household income is $39,396. The percent of married householders is 69, female householders is 25, and male householders is 6. The percentage of persons 25 years and over without a high school diploma is 25. In addition, 56 percent of the community earned a high school diploma and have some college education but no degree. Seven percent of the community hold an associate's degree, 8 percent hold a bachelor's degree and 3 percent hold a graduate or professional degree. Unemployment and poverty level for this community is 5 percent. The average travel time to work is 27 minutes (U.S. Census, 1990).

As stated earlier, School B exists in a district of four elementary schools and two middle schools. Overseeing this districts operations are a superintendent, an assistant superintendent, and a seven member board of education. The average teacher's salary is $33,153. The average administrator's salary is $60,775. The average operating expenditure per pupil is $4,998. The percentage of expenditure by fund is as follows: education, 83;

operations and maintenance, 9; transportation, 6; bond and interest, 0; rent, 0; municipal retirement, 3; capital improvement, 0; site and construction, 0. The total expenditures were $10,833,909 for the 1992-93 school year (School Report Card, 1994).

In order to operate more efficiently, school B receives support from parents and the communities. A Parent-Teacher Association raises funds to purchase school equipment, sponsors activities for the students, and educates its members on community issues. Band Boosters, another parent organization, supports the instrumental music program. It assists with supervision and sponsorship of musical activities (Parent-Student Handbook, 1994). In addition, a community agency networks with school B to conduct classroom groups which discuss adolescent issues such as: gang and drug awareness, sex education, and peer interactions. Local libraries provide additional educational service.

National Context of the Problem

"Each year, literally hundreds of thousands of the nation's youth are classified as special education students or as low achievers and assigned to special classes theoretically designed to meet their particular needs" (Jones & Pierce, 1992, p. 63). According to Gartner and Lipsky (1987), as cited in Jones and Pierce (1992), funding for these special programs was 1.64 billion dollars

in 1985. "In 1990-91 the budget for Chapter One will provide 5.2 billion dollars" (Jones & Pierce, 1992, p. 63).

In today's educational arena, these special education and low achieving students are referred to as "at-risk". "The word *risk* first appeared in printed English in the mid 1600's and was defined as exposure to danger, hazard, mischance, or peril" (Johnson, 1994, p. 34). "The term came into wide use soon after the landmark 1983 proclamation of the Commission on Excellence, A Nation At-Risk" (Brandt, 1992, p. 3). This report condemned schools across the nation, referring to them as mediocre. Parents and students were also seen as contributing to the problem by lacking high expectations and effort. In response to this report, educators countered that declining family structures and other societal inadequacies have a dramatic impact on students.

According to Johnson (1984), the number of students exposed to the elements of risk has seemingly exploded in the past decade. Slavin's study (cited in Johnson, 1994, p. 37) defines students at-risk as those "whose intelligence is within normal limits but are failing to achieve the basic skills necessary for success in school and life". The reasons that students are failing to achieve these skills are vast and varied, including: fatigue, malnourishment, no permanent home, single-parent families, abuse, (sexual, physical and/or emotional) and lack of parental supervision and support.

Various programs, such as tracking, special education, Chapter One, and pull-out programs using supplemental materials, have been implemented to address the needs of these students. However, Slavin reports "recent research suggests that widespread practices and policies, while well-intended, may in fact function to sentence these students at-risk to a poor quality education and the consequences that derive from it" (cited in Jones & Pierce, 1992, p. 63).

In conclusion, research overwhelmingly supports that an increasing number of children are at risk for school failure. "The problems that children bring with them to school these days are upsetting and overwhelming. Educators must not only recognize that but do whatever they can to improve their chances" (Brandt, 1992, p. 3). In light of the fact that many of the nation's children are at-risk, searching for appropriate solutions is a must.

Chapter 2

PROBLEM EVIDENCE AND PROBABLE CAUSE

Problem Evidence

First of all, these action researchers reviewed the 1995 thinking skills subtest scores from the Stanford Achievement Test, Level E (site A) and the California Achievement Test, Level E (site B). It was determined that the majority of the targeted 7th grade students in this study scored between the moderate level to the low level on the subtest. These results confirm the concept that one of the reasons at risk students are low achieving and therefore at risk for school failure is due to deficient cognitive abilities.

Next, consultations were conducted with coworkers: teachers, school social worker and/or school counselor, school psychologist, and administrators. These consultations verified the fact that these

at-risk students live in dysfunctional environments. Examples of the many stressors effecting these students include abuse (physical, sexual, drug, and/or alcohol), neglect, death of a family member, divorce, incarceration of a parent, living in foster care, and abandonment.

Lastly, during the first week of September a teacher pre survey (Appendix A) was distributed to all content area teachers of the targeted seventh grade students. The survey asks teachers to respond, according to their observations of the students the majority of the time, yes or no to the following areas: Sits Up (student has an upright but relaxed posture in his/her chair), Leans Forward (student leans slightly forward in his/her chair during instruction), Activates Thinking (student asks clarifying questions during instruction), Names Key Information (student answers teacher questions, shares ideas or comments, adds to others' statements), and Tracks the Speaker (student keeps eyes on the teacher as he/she speaks, looks at other students as they speak). This SLANT survey was collected during the third week of September. Table 1 shows the results of sites A and B combined.

Table 1

Results Of Teacher SLANT Pre Survey

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
54%	46%	33%	67%	24%	76%	33%	67%	24%	76%

The data clearly shows while teachers perceive that half of the students sit up in their chair during instruction, only one-third of them Lean Forward in their seat and Name Key Information. A mere one-quarter of these targeted seventh grade students Activate their Thinking and Track the Talker. From the results, it can be determined that these students are seen as inactive participants in the classroom.

During the first week of October, strategies instruction began. In the first session, a student survey (Appendix B) was distributed to the targeted seventh grade group. The survey required that students read statements, consider their classroom behavior the majority of the time, and circle yes or no. Other statements required them to reflect on their perceptions and again respond by circling yes or no. The statements are categorized into two areas; performance of a task, perceptions of themselves, and perceptions

of what they think teachers consider important. The statements targeting student behaviors of the tasks are as follows: during class discussions I sit up in my chair, I lean forward in my seat during teacher instruction, I ask the teacher for help when I don't understand something, I ask myself if I understand what the teacher is teaching, I frequently answer teacher questions in class, I frequently share my ideas and add to class discussions, and I look at the teacher when he/she is speaking. The statements focusing on perceptions are as follows: the way I sit in my chair makes a difference to teachers, I feel comfortable asking for help on an assignment or when I don't understand something, teachers care if I understand an assignment, my teachers think it is important for me to participate in class discussions, what I have to say in class discussions is important, and teachers think it is important for me to look at them during class discussions.

Table 2 shows the results of the responses to task performance statements on student SLANT surveys at sites A and B combined. The total number of students equals 21.

Table 2

Results of Student SLANT Pre Surveys (Performance of Task)

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
67%	33%	43%	57%	60%	40%	52%	48%	67%	33%

In regards to the task statements (Table 2), with the exception of Leaning Forward, over half of the students responded that they do perform the tasks of Sitting Up, Activating their Thinking, Naming Key Information, and Tracking the Talker.

Table 3 shows the results of the responses to perception statements on student SLANT surveys at sites A and B combined. The total number of students equals 21.

Table 3

Results of Student SLANT Pre Surveys (Student Perceptions)

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
67%	33%	N/A		76%	24%	93%	7%	86%	14%

Referring to student responses dealing with perceptions (Table 3), interesting disparities can be noted from task performance responses (Table 2). While three-quarters of the students replied that teachers care if they understand something and they feel comfortable asking for clarifications, only three-fifths of the students actually ask questions. In terms of Tracking the Talker, over four-fifths of the students feel that teachers think it is important for them to look at the teacher during instruction, yet only two-thirds of the of the students perform the task. The greatest discrepancy is noted in the area of Naming Key Information where nearly all of the students responded that what they have to say is important, and teachers want them to participate in class discussions, but only one-half of them share their ideas in class.

After studying the results of teacher responses (Table 1) versus student responses (Tables 2 & 3), further differences are detected. It can be determined that the majority of the students view themselves as exhibiting behaviors that make them active participants in class. However, there is a great discrepancy between student and teacher observations of these same behaviors. In the area of Naming Key Information, half of the students noted they perform the task, while teachers responded that only one-third of them do. Still greater discrepancies are found in the areas of

Activating Thinking and Tracking the Talker. Three-fifths and two-thirds of the students respectively replied "Yes" in these areas, whereas teachers stated only one-quarter of the students fulfill the criteria of the behaviors.

Probable Causes

In analyzing the context, these action researchers note probable causes inherent in both sites. First of all, through cognizance of the school structures, both sites attempt to educate students in heterogeneous classrooms. However, higher ability math students are grouped together which creates a skewed grouping. In essence, a tracking system exists at both sites.

Secondly, the current structure of both settings utilizes departmentalization. This leads to curriculum being taught in isolation, with little opportunity to implement interdisciplinary units of study. In addition, teachers have little time to collaborate about student needs. Settings are also curriculum driven where a certain amount of content is required to be covered each school year. This lends itself to a fast and furious pace. Could the lack of time for processing information be the reason that teachers observed only one-quarter of the targeted at risk group asking clarifying

questions? Do the targeted group of students even have sufficient time to understand the content being presented in class to discern what they do not comprehend?

Furthermore, through direct observation by these researchers, it was found that classes are teacher-directed rather than student-directed. Teachers dominate the content and the direction of discussions. Too often questions posed by the teachers leave no room for exploration of thoughts. Teachers also use a very short wait-time between asking a question and calling on a student to respond. This lends itself to only a few students answering all of the questions while the rest of the class remains unresponsive and unchallenged.

Generally, the targeted at risk seventh grade students need more time for processing information and are not among the first to raise their hands to respond. Could this be the reason why teachers noted that only a quarter of these students Name Key Information by answering teacher questions?

The literature suggests several underlying causes for low academic achieving students, thus being labeled at risk for school failure in the middle school setting. According to Ruff (1993), poor academic performance begins when children enter school. Often they lack basic skills required for learning. In addition, other students bring serious emotional and family issues to the school setting that

inhibit their ability to focus on academic tasks. Moreover, Blemiller and Meichenbaum (1992) and Knight and Wadsworth (1994) agree that middle school students do not have a range of independent learning strategies from which to choose to meet rigorous curricular demands. At risk students are at a further disadvantage because they are unable to link old and new information and experiences. Also, they lack self-regulatory learning skills.

Researchers agree that the aforementioned causes directly impact students motivation, or lack thereof. This presence or absence of motivation plays an integral part in students' success in school. Continual failure leads to great frustration, hardening their attitudes to the entire educational system. Who could blame these students for giving up? (Gentile & McMillan, 1994; Manning, 1993; Ruff, 1993).

Other causes for students being at risk for school failure can be attributed to conventional teaching approaches and curriculum that do not meet the needs of these students. According to Means and Knapp (1991), there exists a basic assumption in America's schools that basic skills need to be mastered before moving on to more advanced concepts. This being the case, at-risk students are separated from higher level peers and are burdened with a repetitious curriculum laden with basic skills instruction and a limited exposure to tasks which require higher order thinking.

Those students who are not separated from their peers exist in an environment which is curriculum-driven. Teachers are pressured to cover specific curricular content in a specific time frame. Teachers tend to rely heavily on textbooks (Ben-Peretz, 1990 as cited in Brooks & Brooks, 1993) and show a great reluctancy to tamper with them. Consequently, there is not enough time for practice and mastery of the material being covered before the next concept is presented.

In addition to being curriculum-driven, teachers do most of the talking, not requiring students to activate their thinking (Goodlad, 1984 as cited in Brooks & Brooks, 1993). Questions posed by the teacher often require a specific response, referred to by Bellanca and Fogarty (1986), as the "One right answer syndrome." Generally, these questions are followed by very short time frame before students are called upon to respond.

Within such an environment exists two types of learners. Blemiller and Meichenbaum (1992), refer to these learners as "self-directed" and "less self-directed". Higher achieving, or self-directed students, are able to use various cognitive strategies such as verbal self-dialogue, goal setting, planning, and self-questioning to cope with the curricular content and pace of its delivery. Lower achieving, or less self-directed students, do not possess these strategies, leaving them unable to compete in such a classroom.

Further factors that may cause the targeted population to be at risk for school failure is the fact that many of these students are already labeled as Behavior Disordered or Learning Disabled. Teachers often have lower expectations for these students. Gentile and McMillan (1994), further stress the negative impact this has by stating that many educators view them, almost exclusively, in relationship to their deficits.

Lastly, researchers agree that several family factors contribute to students being designated at risk. These include low socio-economic status, lack of parental supervision, lack of parental involvement in the students' education, limited English Proficiency parents, cultural diversities, abuse, single-parent homes, low educational levels attained by parents, and a lack of enriching experiences for children. The overwhelming problems these children face are not left at their doorstep, but are instead carried with them into the classroom. These factors further manifest themselves in negative behaviors at school: not doing homework, inattentiveness in class, absenteeism and/or tardiness, unprepared for tests and quizzes and insubordination (Manning, 1993; Ruff, 1993). Is it any wonder that teachers observed such small percentages of the targeted at risk population exhibiting active participation behaviors? Furthermore, could these emotional overlays consume so much of their ability to attend that while nearly every student

replied that teachers want them to share in class discussions, only half of them do? Are their minds even available enough to process class discussions, allowing them the opportunity to share?

The following is a list of probable causes these action researchers found inherent in both sites and in the literature search:

1. students are not required to reflect on their learning

2. teachers do most of the talking, not requiring students to activate their thinking

3. students are exposed to limited activities which require active participation

4. teachers have lower expectations for students lacking basic skills

5. students are already identified as learning disabled and/or behavior disordered

6. students lack motivation to perform

7. educators assume that basic skills must be mastered before students are exposed to higher level instruction

8. students identified with special needs are isolated from their more advantaged peers and not given the same educational challenges

Chapter 3

THE SOLUTION STRATEGY

Review of the Literature

Just as there are a variety of causes for students to be at risk for school failure, the research provides an array of solutions from which to choose. These action researchers will explore solutions to the causes inherent in the school setting. The following themes will be examined: perceptions about disadvantaged students, a shift in programming/philosophy, curriculum, and cognitive instructional strategies.

First of all, the disadvantaged student needs to be perceived by teachers as one who can achieve. According to Means and Knapp (1991), rather than looking at disadvantaged students as lacking skills and condemning them for their lack of experiences outside of school, cognitive researchers believe that instruction should

enhance the skills and abilities the children already possess. Furthermore, researchers agree that educators must set high expectations for these students and challenge them to succeed by promoting higher order thinking skills and incorporating goal setting into daily instruction. In order to successfully implement these components, teachers must intentionally and specifically model their uses (Manning, 1993; Taylor & Reeves, 1993). For these perceptions to simply exist is not enough; teachers must believe in and be committed to them.

In addition to educators changing their perceptions of the at-risk student, they need to shift current programming practices and philosophies of instruction as well. Tracking is one widely used method where students are grouped according to ability. Typically, at-risk students are placed in tracks; with low achieving peers. According to Jones and Pierce (1992), tracking is an unsuccessful method of grouping students for instruction. Not only do at risk students receive a lower quality of instruction, but being separated from higher achieving peers puts both groups at a disadvantage. Kozol (1993) verifies this by stating "It's not just that tracking damages the children who are doing poorly, but it also damages the children who are doing very well. . . we deny them the opportunity to learn something about decency and unselfishness" (pp. 6-7).

Heterogeneous grouping is another method of instruction frequently implemented in schools. Oakes (1986), as stated in Jones and Pierce (1992), contends that heterogeneous grouping is not a viable solution as long as traditional teaching practices continue. In other words, grouping students in the same class with various abilities and teaching them as a group is not sufficient. Having heterogeneous groups of students cooperatively working together to undertake academic tasks is an alternative. "More than 500 research studies point out the benefits of the cooperative approach for *all* students" (Bellanca & Fogarty,1991, p. 3).

In order for the shift of current programming practices and philosophies of instruction to be effective there needs to be a refocus in the curricula and the methods in which it is delivered. Researchers agree that the curriculum must be presented in a whole to part fashion with emphasis placed on big concepts, basic skills need to be embedded in more complex tasks, and educators need to scrutinize these tasks for meaningfulness and relevance to students for use in their daily lives. Consideration should also be given to the experiences and knowledge students bring to the task and should serve as the springboard for instruction. Furthermore, students need to work in cooperative groups as thinkers and questioners while teachers serve as classroom facilitators. Given the above approaches, all students are more motivated to learn, better able to

conceptualize information, and have a greater chance of transferring skills to their environment (Brooks and Brooks, 1993; Means and Knapp, 1991). Now the at risk population, being participants in the restructured environment, are given a fighting chance for school success.

The final solution for increasing the probability of academic success for at risk students is the implementation of cognitive strategies. According to Bellanca and Fogarty (1986),

> The Teaching About Thinking, what is properly called "metacognition" or "going beyond thinking," may be the most powerful and important of all the approaches. First, it is the glue that binds all of the pieces. Isolated skills, no matter how well taught, have limited influence on the quality of thinking. Metacognitive activity encourages the skillful thinker to make the connections with conscious effort. Secondly, metacognition is a critical part of the process whereby the student masters any of the thinking skills. (p. 27)

Since low achieving and mildly disabled students tend to lack cognitive strategies to direct their thinking in order to learn and use new information, these skills must be taught in an intentional and direct manner (Lerner, 1985, as cited by Cottone, Kaminsky, Luchow, & Simmonds,1989). Deshler and Shoemaker (1986), from the University of Kansas Institute for Research in Learning Disabilities have designed a program to address this void. It is called the Strategies Intervention Model, or SIM . According to these authors, this model provides students with an organized system of techniques and principles that enable them to acquire new information, problem solve, and become independent learners. The primary focus of this instruction is to provide students with the tools necessary for learning how to learn as opposed to learning content specific to classroom studies. These strategies equip students with the skills necessary to meet the increasing curricular demands as they make the transition from elementary to secondary education. However, other researchers believe that the use of this model alone is insufficient in and of itself in creating strategic learners. They stress the importance of a strategic environment for students as well. In such an environment students are taught how to set and evaluate both long and short term goals, reflect on their progress through teacher feedback, and curriculum is restructured to make it more comprehendible by the student (Lenze & Deshler, 1990).

These researchers acknowledge that creating such an environment is a difficult undertaking.

Though many solutions have been explored to provide successful experiences for at-risk students, these action researchers, after much deliberation and research, have chosen to implement a strategy from the Strategies Intervention Model. The rationale for selecting this model is that the environment in which these action researchers instruct is outside of the regular education mainstream. Also, the students instructed in this environment are low achieving and/or mildly handicapped and are known to lack cognitive strategies. Lastly, these action researchers can not directly manipulate the various other solutions explored because they lend themselves only to the regular education setting.

Project Outcomes and Solution Components

As a result of teaching students a strategy for active participation during the period of September 1995 to January 1996, the targeted seventh grade students will increase metacognitive skills as measured by student reflective journals, teacher observations, and teacher and student pre and post surveys.

In order to accomplish the terminal objective, the following processes are necessary:

1. Gather thinking skills subtest scores from standardized achievement test.
2. Select students to participate in strategy training.
3. Inform colleagues involved with targeted population of students participating in strategy training.
4. Distribute teacher and student SLANT pre surveys.
5. Introduce student reflection journals.
6. Implement SLANT Strategy Model.
7. Maintain ongoing written record of student progress in teacher journal.

Action Plan for the Intervention

In an attempt to increase the metacognitive skills in low achieving students, the action researchers will implement the Strategies Intervention Model, SIM (Schumaker, Deschler, and Ellis, 1986). This model has been developed to address the academic, social, and motivational needs of students at risk for school failure.

The researchers will focus on one strategy from this model, SLANT.

SLANT is a strategy which focuses on guiding the students to become active participants in a classroom setting. SLANT is an acronym for: Sit Up, Lean Forward, Activate Thinking, Name Key Information, and Track the Talker.

I. Preparation for Implementation of Action Research

A. Baseline Data

1. Gather thinking subtest scores from standardized achievement tests and analyze data.
2. Select students to participate in strategies training.
3. Inform colleagues involved with targeted population.
4. Distribute teacher SLANT pre surveys.*
5. Administer student SLANT pre surveys.*

B. Introduce Student Reflection Journal

1. Describe purposes of journal.
2. Describe procedures for using the journals.

II. Strategies Intervention Model

A. SLANT Strategy

1. Introduce SLANT Steps Chart.*

a. Discuss rationales for learning the strategy.*

b. Discuss when and where to use the strategy.

c. Discuss what happens when students choose to participate and choose not to participate.*

2. Describe Strategy

a. Describe the five steps which make up the strategy.*

3. Model Strategy

a. Demonstrate the strategy.

1. Teacher directs the demonstration.

2. Teacher involves students in demonstration.

3. Teacher provides verbal feedback regarding student performance of desired behaviors.

4. Verbal Practice

   a. Conduct a verbal elaboration activity.

   b. Conduct a verbal rehearsal activity.

   c. Check student understanding and memory of SLANT Steps through examples/non examples test.*

5. Practice Strategy

   a. Students target one academic class in which to perform SLANT behaviors.

   b. Students observe one another and provide feedback to each other utilizing observation chart.*

6. Post SLANT test*

7. Post survey teachers* and students*

8. Generalization of Skills

   a. Encourage students to observe the effect of the strategy in a new setting.

      1. Discuss with students how their use and non-use of the strategy will impact teacher interaction with them in regular education settings.

b. Ask the teacher of a targeted class to cue the students to practice the strategy in her classroom.

1. Describe SLANT strategy and rationale to teacher.
2. Request cooperation in cuing student to use strategy in classroom and provide feedback.
3. Reinforce use of SLANT with Slant Dollars.*
4. Periodically check with teacher on student performance of strategy.

Items denoted with (*) are located in the Appendices.

Methods of Assessment

In order to assess the effects of the implementation of the SLANT strategy, several instruments will be developed and utilized. Classroom teachers and the targeted group of students will complete pre and post surveys. These action researchers and the targeted group of students will maintain an ongoing record of progress in observation logs and reflection journals respectively. In

addition, consultations with classroom teachers concerning student progress will be conducted throughout the intervention. Lastly, pre and post tests will be administered to students.

Chapter 4

PROJECT RESULTS

Historical Description of Intervention

The objective of this project was to increase metacognitive skills of the targeted seventh grade students. The SLANT Strategy, taken from the Strategies Intervention Model, was selected and implemented to increase students' awareness and use of active participation behaviors in the classroom.

The SLANT Strategy was used to teach active participation skills. Strategy instruction was designed to take place three times per week, in thirty minute sessions. The first two weeks of instruction centered on introducing the strategy. In the first few sessions, the SLANT Steps Chart (Appendix C) was distributed to students and the rationales for its use (Appendix D) were discussed. These discussions led to further explanations as to where and when to utilize the strategy. To further emphasize the impact of the strategy, a handout was given to the students which described what happens when students choose to participate or not to participate in

classes (Appendix E). At the culmination of the introductory phase, examples and non-examples of the five steps of the strategy (Appendix F) were thoroughly discussed. At this point in the intervention, due to scheduling conflicts, three day per week sessions were not adhered to on a consistent basis. This required instruction to be limited to two day per week sessions. Teacher/researchers' observations noted this negatively impacted strategy instruction as the time between sessions required reteaching material presented in previous sessions.

For the next two weeks, the teacher/researchers conducted the next phase of implementation, modeling the strategy. This involved teacher demonstrations of the desired behaviors while students observed. Students were then involved in the demonstrations as they performed the desired skills. Students continued to practice the strategy within the confines of the small group setting. During these practice sessions, students were given the opportunity to play the role of the teacher while the other students practiced the steps of SLANT. The teacher/researchers observed the students and then provided each with feedback. A test (Appendix G) was administered to assess students' ability to name examples and non-examples of each step in the strategy.

As strategy instruction proceeded, students were encouraged to focus on implementing the strategy in one academic class. In

addition, goal setting was introduced. Each student was required to set an individual weekly goal targeting a specific area of the SLANT strategy. Students reflected on their progress in their journals, evaluated their goals, and set new ones. The duration of strategy instruction sessions were student-centered. Part of each strategy class was devoted to group members sharing their own SLANT experiences. Furthermore, utilizing the SLANT Observation Chart (Appendix H), students recorded informal observations of their peers' performance of SLANT behaviors in academic settings. Then, during strategy instruction, students provided feedback to each other regarding the information they had charted. These teacher/ researchers observed that student proficiency in the various areas of SLANT was increasing. At this time, students were encouraged to expand the use of the SLANT strategy to more than one academic class.

At the culmination of strategy implementation, a post test (Appendix I) was administered to assess students' ability to name and describe the components of the SLANT Strategy. At this point, assistance from classroom teachers was requested to facilitate maintenance of students' SLANT behaviors in classes. Teachers were given certificates, referred to as slant dollars, (Appendix J) to distribute to students when they displayed appropriate SLANT behaviors. As a group, the students set a goal for the number of

slant dollars to be earned. Once the goal was attained, the class celebrated their success with a party.

Presentation and Analysis of Results

In order to assess the effects of the SLANT Strategy on students' metacognitive skills, teacher observation journals and student reflection logs were maintained throughout the intervention. To further assess the effectiveness of the strategy, teacher and student post surveys were administered. These surveys were the same instruments administered as at the beginning of the intervention. Table 4 shows the results of teacher post surveys (Appendix K) of sites A and B combined.

Table 4

Results of Teacher SLANT Post Survey

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
66%	34%	63%	37%	38%	62%	45%	55%	63%	37%

According to the results of the data presented in table 4, teachers perceive that roughly two-thirds of the targeted group of students exhibit the behaviors of Sitting Up (S), Leaning Forward (L),

and Tracking the Talker (T). These three behaviors are not only statistically similar, they are also alike in that they are physically performed by the students. On the contrary, in the area of Activating Thinking (A) teachers observed slightly more than one-third of the students ask clarifying questions. However, a little less than half perform the behavior of Naming Key Information (N) by answering teacher questions and sharing ideas during class discussions. These figures reflected a lower number of students displayed these two behaviors in comparison to the other three. An additional similarity is that they both require the students to utilize metacognition, or thinking skills.

Along with the teacher post surveys, the students from the targeted group were also surveyed. The results of the students' responses regarding their performance of each task are presented in Table 5. The total number of students equals 21. For a thorough description of task and related statements, refer to Chapter II, page 21.

Table 5

Results of Student SLANT Post Surveys (Performance of Task)

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
86%	14%	57%	43%	75%	25%	50%	50%	86%	14%

In regards to student responses noted in table 5, half and slightly over half of the students view themselves as performing the tasks of Naming Key Information and Leaning Forward respectively. Three quarters of the students view themselves as Activating their Thinking during classroom instruction, and an overwhelming seven-eighths of students responded they Sit Up and Track the Talker.

Student responses based on perception statements are displayed in Table 6. The total number of students equals 21. Again, refer to Chapter II, page 21 for the description of the statements regarding the students' perception statements.

Table 6

Results of Student SLANT Post Surveys (Student Perceptions)

S		L		A		N		T	
YES	NO	YES	NO	YES	NO	YES	NO	YES	NO
79%	21%	N/A		89%	11%	89%	11%	93%	7%

In comparing Tables 5 and 6, these teacher/researchers have identified both similarities and discrepancies in the data. Sitting Up and Tracking the Talker, as stated earlier, are physical behaviors. Four-fifths and more of the students feel that teachers think it is important for them to perform these tasks during instruction. Roughly the same number of students perceive themselves as performing these behaviors in class. In the other two areas, which necessitate metacognitive skills, the figures are not as closely related. While nearly ninety percent of the students feel what they have to say in class is important (Naming Key Information), only half of the students reported they actually answer teacher questions and share their ideas during class discussions. The same number, ninety percent, feel comfortable asking for help and feel the teachers care if they understand the information (Activating their Thinking).

Yet, only seventy-five percent of these students ask for help when they do not understand something.

Furthermore, in comparing Table 4 (Teacher responses) with Table 5 (Student responses) similar trends are noted. Teachers and students responded statistically similar in the areas of Leaning Forward and Naming Key Information. Teachers noted that two-thirds of the students Sit Up and Track the Talker unlike four-fifths of the students who responded they display the behaviors. The greatest discrepancy was in the area of Activating their Thinking where teachers perceived only two-fifths of the students asking questions while an overwhelming three-quarters of the students answered they ask clarifying questions.

A final comparison of results taken from pre and post teacher and student survey data is represented in Figure 1 on the following page.

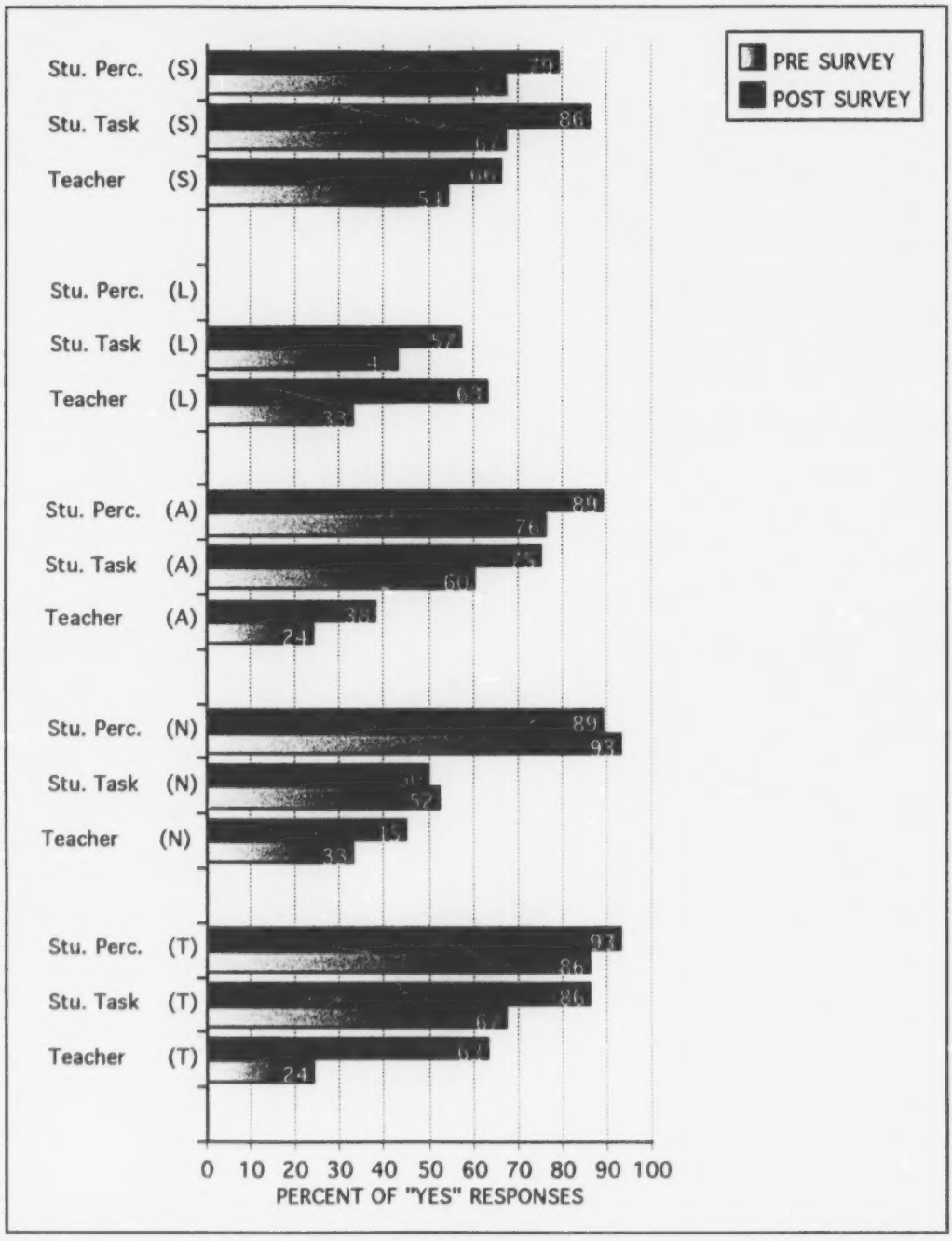


FIGURE 1

Teacher and Student Results

from Pre and Post SLANT Surveys

50

In analyzing the bar graph, Figure 1, several areas of interest arise concerning the results of teacher pre and post survey data. First of all, the number of students that teachers observed exhibiting all areas of SLANT increased from pre to post surveys. The intervention appears to have had a positive effect on increasing active participation behaviors by students in the targeted group. Two areas that show exceptional change are Tracking the Talker, which tripled, and Leaning Forward, which doubled, from pre to post surveys. Remember, these are physically performed behaviors and are more easily observed by teachers than their metacognitive counterparts.

In analyzing student pre and post survey data further trends emerge. First of all, the number of students responding "yes" to perception statements increased from pre to post surveys, with the exception of Naming Key Information, where only a four percent difference exists. Likewise, the number of "yes" responses by students to task related statements increased from pre to post surveys, with the exception of Naming Key Information, where a mere two percent decrease is noted. These consistent increases may indicate that students have a greater awareness of teacher expectations, as well as a greater awareness of themselves as learners, resulting from the intervention.

Finally, the graph clearly depicts that a greater number of students consistently perceive themselves as performing all areas of the targeted behaviors in the SLANT strategy than did their teachers. The following variety of possible explanations for this disparity has been explored in Chapter II: fast paced instruction, short wait time, too much teacher talk, and a low priority placed on student reflection of learning. These teacher/researchers will explore these issues in the final section of this chapter.

Conclusions and Recommendations

Based on the presentation and analysis of the survey data, the students in the targeted group exhibited an increase in their active participation behaviors. Further support for this conclusion results from a synthesis of teacher/researcher observations, student reflections (Appendices K, L & M), and discussions in the strategy sessions. Through the course of strategy instruction, it became readily apparent to these teacher/researchers that the curriculum of the strategies in and of itself was not the catalyst for change. Rather, it served as a springboard for more personal examination. Throughout the instruction of the intervention, students were allowed to voice their academic concerns, to problem solve, and to explore their own strengths, weaknesses, and learning styles in a safe environment.

These teacher/researchers found this to be an extremely valuable component of the intervention.

Initially, student reflections indicated an interest in the SLANT strategy, but confusion existed as to its relevance in assisting them to become better students. Through in-depth discussions with students, these teacher/researchers discovered that the target group needed a purpose for learning the strategy. After providing them with rationales, the students exhibited a greater investment in the intervention. As strategy instruction progressed, student comments in discussions and reflections evidenced a heightened awareness of their roles as learners and of the expectations their teachers have of them. Students were able to cite specific examples of how they used the strategies in their classes and the positive impact it had in these situations. Informal discussions with the classroom teachers further verified these examples. This support told these teacher/researchers that the students had acquired some of the desired skills and were beginning to use them.

As instruction continued, it became apparent that students were struggling with the Activating your Thinking step. Students reportedly practiced Activating their Thinking quite often in the classroom settings, but teacher/researcher and other teacher observations contradicted their reports. This discrepancy may be

due to the fact that some students have a limited fund of knowledge which may impair their ability to link new information to existing knowledge. In these instances, it may appear to the teacher that the students are not Activating their Thinking since they are not asking clarifying questions. Meanwhile, these students are attempting to metacognitively process the information. In light of this, do students even have an opportunity to formulate and ask questions? Confirmation of this arose in strategy instruction. Students related that they realized they did not understand some information presented in class, but they did not know how to ask for clarification. Though difficulties in this area are still evident, the intervention appears to have made the students cognizant of their shortcomings in this area. Keep in mind, the students in the targeted group are Learning Disabled, have Social/Emotional Disorders, and/or are at-risk for various other reasons. However, it should not be overlooked that a fourteen percent increase in this area was noted from pre to post teacher surveys. Again, the intervention appears to have had a positive impact on student participation.

These teacher/researchers also note that this step was the most difficult area to instruct because it requires the use of metacognitive skills. These skills can only be described to the

students, not easily modeled in a contained setting. Furthermore, these behaviors are not easily observed.

These teacher/researchers would highly recommend the instruction of the SLANT strategy to increase active participation skills in the classroom. Though there was not marked improvement for all students in all areas, this strategy instruction had a positive impact on several students in the targeted group. These students, prior to the intervention, were uninvolved in classes and were passive learners. SLANT provided them with a tool to allow them to become more independent learners and gave them strategies for interacting with teachers. These students are now viewed as active participants in many classes.

These teacher/researchers found the SLANT curriculum comprehensive and easy to follow. Modifications to the strategy instruction schedule was necessary due to conflicts within the confines of the sites. As was mentioned earlier, strategy instruction was reduced to two days per week rather than the prescribed five day per week schedule.

In addition to the modifications, pitfalls were encountered during the intervention. First of all, time needed for collaboration among the teacher/researchers and classroom teachers was difficult to incorporate due to conflicting schedules. Furthermore, classroom teachers did not have the opportunity to become educated

in the SLANT strategy. Therefore, they were unable to gain a thorough understanding of it. Consequently, students were not properly cued to perform the SLANT behaviors or consistently reinforced when they displayed them in various classroom settings. Thus, internalization and generalization of the desired skills were hampered. Lastly, the teacher/researchers were unable to facilitate generalization of the strategy since they were not in the classrooms consistently.

In conclusion, these teacher/researchers recommend that before implementing strategy instruction, careful consideration should be given to assessing the environment. This assessment would include having a specific time set aside for instruction, a contained environment in which to conduct the instruction, a time line for educating teachers, and time built into the schedule for collaboration with them. The final recommendation these teacher/researchers would offer is for strategy training to continue. The group of students should be assessed for further weaknesses. Additional strategies can be selected from the Strategies Intervention Model to address these areas. Overall, these teacher/researchers firmly believe that in spite of the pitfalls, this strategy provided these at-risk students with a concrete device to help them survive in the fast-paced middle school environment and on into high school.

REFERENCES CITED

1994 School Report Card. MacArthur Middle School, Berkeley, Illinois.

1994 School Report Card. South Middle School, Arlington Heights, Illinois.

Bellanca, J., & Fogarty, R. (1991). Blueprints for thinking in the cooperative classroom. Palatine, IL: Skylight.

Bellanca, J., & Fogarty, R. (1986). Catch them thinking: A handbook of classroom strategies. Palatine, IL: IRI.

Blemiller, A., & Meichenbaum, D. (1992). The nature and nurture of the self-directed learner. Educational Leadership, 75-78.

Brandt, R. (1992). Overview: Yes, children are still at risk. Educational Leadership, 50, 3.

Brooks, J.G., & Brooks, M.G. (1993). The Case for Constructivist Classrooms. Alexandria, VA: Association for Supervision and Curriculum Development.

Cottone, V., Kaminsky, S., Luchow, J.P., & Simmonds, E.P.M. (1989). Applying cognitive learning strategies in the classroom: A collaborative training institute. Learning Disabilities Focus, 97.

Deshler, D.D., & Schumaker, J.B. (1986). Learning strategies: An instructional alternative for low-achieving adolescents. Exceptional Children, 583-585.

Ellis, E.S. (1990). What's so strategic about teaching teachers to teach strategies? Teacher Education and Special Education, 60-61.

Gentile, L.M., & McMillan, M.M. (1994). Critical dialogue: The road to literacy for students at risk in middle schools. Middle School Journal, 50-51.

Johnson, G.M. (1994). An ecological framework for conceptualizing educational risk. Urban Education, 29, 34-49.

Jones, B.F.,& Pierce, J. (1992). Restructuring educational reform for students at risk. In A. Costa, J. Bellanca, & R. Fogarty (Eds.). If minds matter: A forward to the future (pp. 63, 76-77). Palatine, IL: Skylight.

Knight, D., & Wadsworth, D. (1994). Accommodating the at risk student in the middle school classroom. Middle School Journal, 25.

Lenz, K.B., & Deshler, D.D. (1990). Principles of strategies instruction as the basis of effective pre service teacher education. Teacher Education and Special Education, 84-85.

Manning, M.L. (1993). Seven essentials of effective at-risk programs. The Clearing House, 136-138.

Means, B., & Knapp, M. (1991). Cognitive approaches to teaching advanced skills to educationally disadvantaged students. Phi Delta Kappan, 282-284, 286-288.

Parent-Student Handbook of school B, 1994.

Ruff, T.P. (1993). Middle school students at risk: What do we do with the most vulnerable children in American education? Middle School Journal, 10-12.

Scherer, M. (1993). On savage inequalities: A conversation with Jonathon Kozol. Educational Leadership, 7-8.

Take a look at Arlington Heights School District 25, 1994.

Taylor, R., & Reeves, J. (1993). More is better: Raising expectations for students at risk. Middle School Journal, 14-15.

United States Census. (1990). Arlington Heights, Illinois.

United States Census. (1990). Bellwood, Illinois.

United States Census. (1990). Berkeley, Illinois.

United States Census. (1990). Hillside, Illinois.

APPENDICES

Appendix A
Teacher SLANT Pre and Post Survey

TEACHER SURVEY

_____	_____	_____
teacher	subject	period

PLEASE CIRCLE THE APPROPRIATE RESPONSE CONCERNING _____ IN THE FOLLOWING AREAS:

SITS UP (student has an upright but relaxed posture in his / her chair)

YES NO

LEANS FORWARD (student leans slightly forward in his / her chair during instruction)

YES NO

ACTIVATES HIS / HER THINKING (student asks clarifying questions during instruction)

YES NO

NAMES KEY INFORMATION (student answers teacher questions, shares ideas or comments, adds to others' statements)

YES NO

TRACKS THE SPEAKER (student keeps eyes on the teacher as he / she speaks, looks at other students as they speak)

YES NO

Appendix B

Student Pre and Post Survey

Name: _____

Date: _____

STUDENT SURVEY

Please read each of the following statements, decide if you would answer yes or no, and circle the appropriate response.

During class discussions I sit up in my chair.

YES NO

The way I sit in my chair makes a difference to teachers.

YES NO

I lean forward in my seat during teacher instruction.

YES NO

I ask the teacher for help when I don't understand something (homework, the topic of discussion, etc.).

YES NO

I ask myself if I understand what the teacher is teaching.

YES NO

I feel comfortable asking for help on an assignment, or when I don't understand something.

YES NO

Teachers care if I understand an assignment.

YES NO

I frequently answer teacher questions in class.

YES NO

I frequently share my ideas and add to class discussions.

YES NO

My teachers think it is important for me to participate in class discussions.

YES NO

What I have to say in class discussions is important.

YES NO

I look at the teacher when he / she is speaking.

YES NO

Teachers think it's important for me to look at them during class discussions.

YES NO

Appendix C

SLANT Steps Chart

Step 1: Sit up.

Step 2: Lean forward.

Step 3: Activate your thinking.

Step 4: Name key information.

Step 5: Track the talker.

Appendix D

Rationales Behind the SLANT Strategy

**If students are active participants in class, they learn more.

**If students transform information into their own words, they will be more likely to remember it.

**If students participate in positive ways, they enhance their relationship with the teacher which leads to a higher quality education.

Appendix E

What happens when you . . .

Choose to participate:

Teachers:	Make things more interesting Use more humor Are friendlier
Other Students:	Learn from you May be friendlier toward you
You:	Understand more Remember more

Choose to not participate:

Teachers:	Think you have a bad attitude Think you are less capable
Other Students:	Are less likely to include you Don't benefit from your knowledge
You:	Miss useful information Remember less

Excerpt from "SLANT"/Edge Enterprises, Inc., 1991

Appendix F

Description of SLANT Steps

STEP	EXAMPLES	NON-EXAMPLES
Sit Up	Upright posture but relaxed	Head on desk Slouching in chair
Lean Forward	Leaning forward slightly	Leaning backward Exaggerated forward lean
Activate your thinking	Asking yourself questions: "What is this about?" "What do I need to remember?" Answering your questions: "This is about___." "I need to remember____." Asking the teacher a question when you don't understand	Talking to others during class Playing with objects Doodling Not doing anything when you don't understand
Name key information	Answering the teacher's questions Sharing your ideas or comments Adding to others' statements	Keeping your knowledge to yourself Ridiculing others' comments
Track the talker	Keeping your eyes on teacher as she speaks Looking at students as they speak	Staring out the window Looking at your desk

BEST COPY AVAILABLE

Appendix G

SLANT Steps Test

STEP	EXAMPLES	NON-EXAMPLES
Sit Up	1.	1.
Lean Forward	1.	1.
Activate your thinking	1. 2.	1. 2.
Name key information	1. 2.	1. 2.
Track the talker	1.	1.

(Van Reusen, A.K., Bos, C., Schumaker, J.B., & Deshler, D.D., Edge Enterprises, Inc., 1987)

Appendix H

SLANT Observation Chart

	S	L	A	N	T	TOTAL
STUDENTS						

Appendix I

SLANT POST TEST

Name: _____

Date: _____

S_____

Give 2 positive examples of how this step would look:

Give 2 non-examples of how this step would not look:

L_____

Give 2 positive examples of how this step would look:

Give 2 non-examples of how this step would not look:

A_____

Give 2 positive examples of how this step would look:

Give 2 non-examples of how this step would not look:

N_____

Give 2 positive examples of how this step would look:

Give 2 non-examples of how this step would not look:

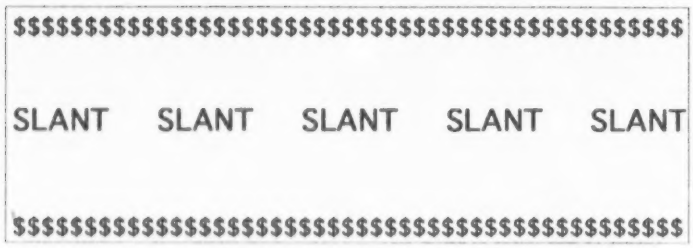
T_____

Give 2 positive examples of how this step would look:

Give 2 non-examples of how this step would not look:

Appendix J

SLANT Dollars


$$$

Appendix K

Student Reflection

TODAY'S REFLECTION

* *SELECT ANY OF THE SENTENCE STARTERS BELOW TO WRITE DOWN YOUR FEELINGS. (YOU MAY CREATE ONE OF YOUR OWN) THANKS!!* *

TODAY,

I LEARNED . . .

I LIKED . . .

I THOUGHT ABOUT . . .

Appendix L

Student Reflection

REFLECTION

1. My classmates said the following about my performance of the SLANT strategy: _____
_____

I think

_____
_____

2. When I observe other people's SLANT behaviors. . .

_____
_____

I feel this does / does not help them because

_____
_____
_____

3. My greatest weakness in the SLANT strategy still is _____. In classes I feel

_____
_____
_____

I feel I have improved on _____ because_____
_____

I have been working hard on (name the step/steps)

_____

Has this affected your performance at all? (explain)

_____
_____
_____